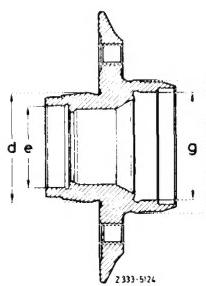
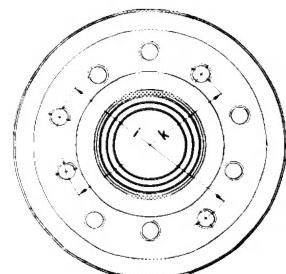


Front wheel hub

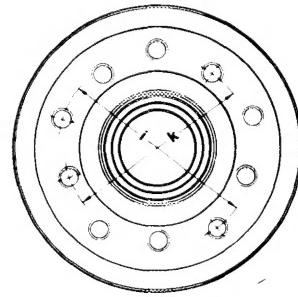
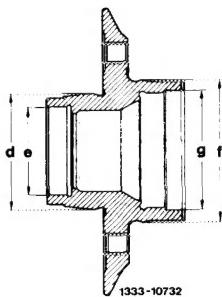
Bolt hole circle dia. "k" for attaching brake disc	104
Bolt hole circle dia. "i" for attaching rim	112
Fit "f" for brake disc	79.97 80.00
Permissible lateral runout on flange	0.03
Permissible vertical runout on disc center line "d"	0.05
Fitted dia. "g" for radial ring	without ABS with ABS
	70 67.5



Front wheel hub without ABS



Front wheel hub with ABS



Designation	Identification	Part no.	Remarks
Tapered roller bearing¹⁾			
Inside tapered roller bearing	LM 48 548 C/10 ²⁾	001 980 29 02	
Outside tapered roller bearing	M 126 49/10	000 981 63 05	
Radial sealing ring			
For front wheel hub	without ABS with ABS	50 x 70 x 13.5/6.5 50 x 67.5 x 13.5/8	011 997 60 46 005 997 44 47
			Radial sealing ring with sealing lip and additional dust lip. During assembly, fill space be- tween sealing lip and dust lip with specified grease.

¹⁾ Bearing-inner races are mounted on spindle with a sliding fit or a light force fit. In the event of repairs, between bearing-inner race and spindle, a radial play of 0.03 mm on inner bearing and of 0.025 mm on outer bearing is still permissible. If the play is higher, there is a possibility of removing that play during assembly by applying "Omnifit Type 80 Red M or H" with activator (combination pack part no. 002 989 69 71) or Loctite 640 (part no. 002 989 20 71). For details refer to respective operating instructions.

²⁾ Special version of tapered roller bearings. During repairs, pay attention to part no.

Lubricants

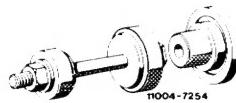
Quantity	Total capacity	approx. 60 g	Suitably weigh full quantity prior to starting assembly of front wheel hub.
	In hub with bearing	approx. 45 g	Fill roller cages of tapered roller bearings well with grease. Also provide roller faces with grease.
	In wheel cap	approx. 15 g	Fill-in approx. up to edge of bead.
Series grade: up to October 1982	Anti-friction bearing grease (refer to Specifications for service products sheet 265).		
Series grade: starting November 1982 and repair grade	High-temperature anti-friction bearing grease (refer to Specifications for service products sheet 265.1)		

¹⁾ Available in screw cans of 150 g, part no. 000 989 49 51.

Tightening torque	Nm
Hex. socket screws for fastening brake disc	115

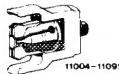
Special tools

Tool for pressing-in outer bearing
races and radial sealing ring



116 589 11 43 00

Puller for outer bearing race
of inner tapered roller bearing



126 589 05 33 00

Conventional tools

Measuring stand

e.g. made by Bosch, D-7000 Stuttgart
order no. 0 601 980 001

Dial gauge A 1 DIN 878

e.g. made by Mahr, D-7300 Esslingen
order no. 810

Note

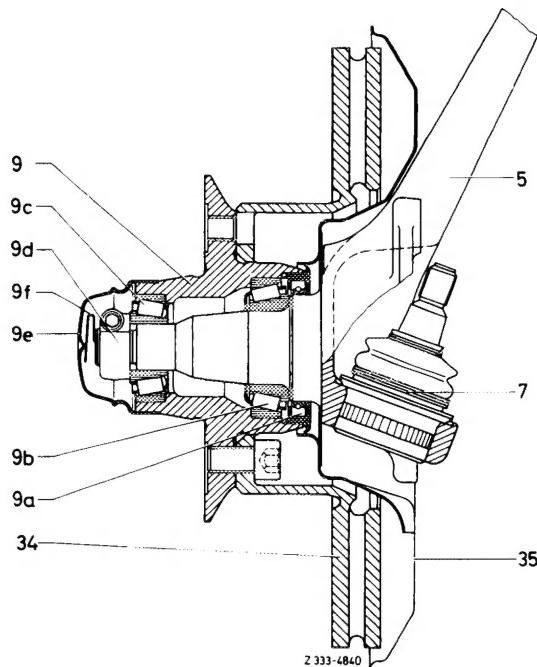
To prevent mix-ups, fill front wheel hubs during repairs suitably with high-temperature anti-friction bearing grease only. When subsequently using high-temperature anti-friction bearing grease in front wheel hubs which were previously filled with anti-friction bearing grease or multi-purpose grease, replace complete grease charge throughout. Avoid mixing high-temperature anti-friction bearing grease with anti-friction bearing grease or multi-purpose grease.

Disassembly

- 1 Separate front wheel hub from brake disc (42–220).
- 2 Remove inner race with roller cage of outer tapered roller bearing (9 c) from hub.
- 3 Press off radial sealing ring and remove tapered roller bearing inner race with roller cage from front wheel hub.

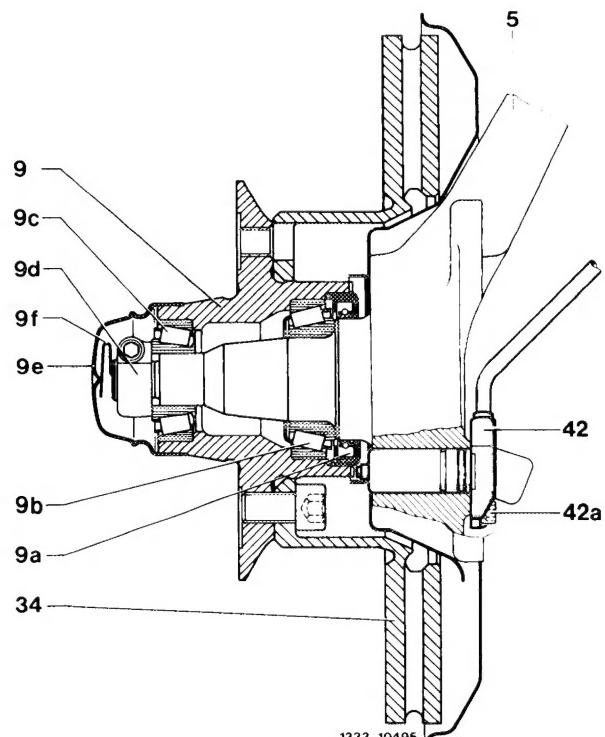
Front wheel hub without ABS

- 5 Steering knuckle
- 7 Supporting joint
- 9 Front wheel hub
- 9a Radial sealing ring
- 9b Tapered roller bearing, inner
- 9c Tapered roller bearing, outer
- 9d Clamping nut
- 9e Wheel cap
- 9f Contact spring
- 34 Brake disc
- 35 Cover plate



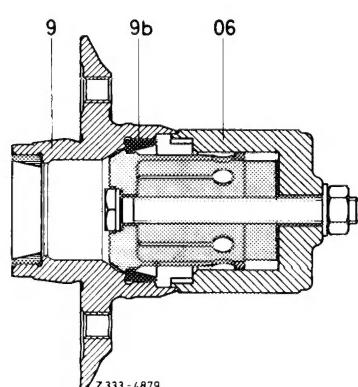
Front wheel hub with ABS

- 5 Steering knuckle
- 9 Front wheel hub
- 9a Radial sealing ring
- 9b Tapered roller bearing, inner
- 9c Tapered roller bearing, outer
- 9d Clamping nut
- 9e Wheel cap
- 9f Contact spring
- 34 Brake disc
- 42 Rpm sensor
- 42a Hex. socket screw

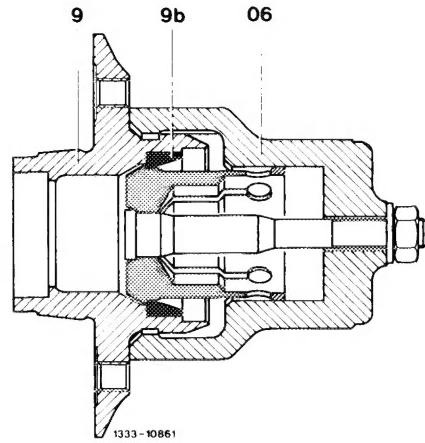


4 Pull out outer race (9 b) of inner tapered roller bearing by means of tool (06).

On front wheel hubs without ABS the former puller, part no. 116 589 14 33 00, can be used again.



**Front wheel hub without ABS,
former version of special tool**



Front wheel hub with ABS,
new version of special tool

5 Uniformly and carefully knock out outer race of outside tapered roller bearing with a suitable brass or aluminum mandrel.

Inspection and repair

6 Check flange of front wheel hub for runout.

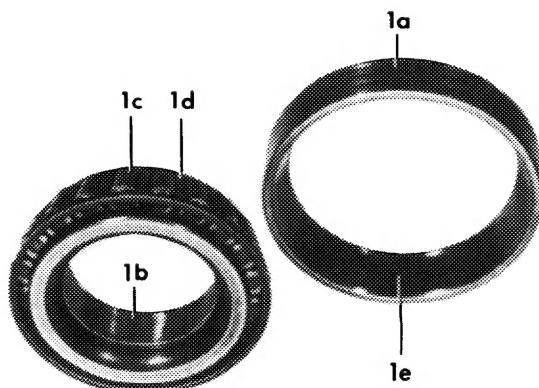
7 Check tapped holes for wheel and brake disc attachment.

8 Check condition of running surface for radial sealing ring on wheel spindle.

9 Thoroughly wash tapered roller bearing and hub inside. Use clean washing compound only.

10 Check tapered roller bearing and bearing seats in hub.

For evaluating tapered roller bearings, the condition of the running surface for the bearing inner and outer races, as well as the faces of the tapered rollers are decisive.



1a Outer race
1b Inner race
1c Tapered rollers

1d Roller cage
1e Race running surface

133-10612

Tapered roller bearings are still fit for use, if:

Running surface of tapered rollers of outer race is smooth and grey.

Tapered roller bearings are no longer fit for use, if:

1. Indentations are showing up on running surface of tapered rollers in outer bearing race (caused by peeled-off material on bearing inner race).
2. Rust has settled on tapered roller bearings (when-ever water enters front wheel bearing through a defective radial sealing ring).
3. The bearing outer race has turned from light brown to blue through excessive heat.

Note: If a tapered roller bearing is defective, be sure to replace also the other bearing of the respective hub.

Mount wheel bearings of same make. If used bearings are installed again, do not confuse correlated bearing inner races with roller cage and outer races.

Assembly

11 Press outer races of tapered roller bearings individually into front wheel hub with tool, while making sure of correct seat of thrust washer (05 b).

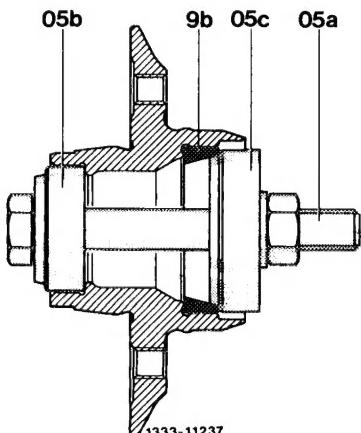
Pressing in outer race of inside tapered roller bearing.

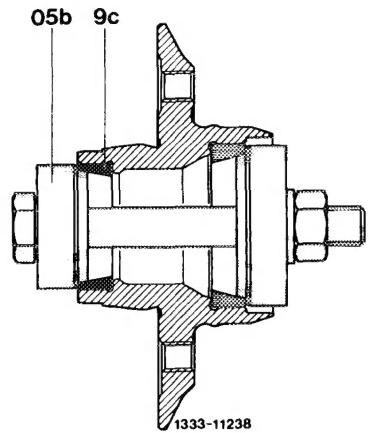
9b Outer race for inside tapered roller bearing

05a Screw with hex nut and washer

05b Thrust washer for outer race of outside tapered roller bearing

05c Thrust washer for outer race of inside tapered roller bearing





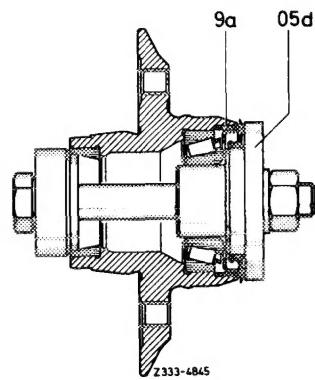
Pressing in outer race of outside tapered roller bearing

**9c Outer race for outside tapered roller bearing
05b Thrust washer for outer race of outside tapered roller bearing**

12 Weigh specified grease quantity for hub with bearing.

13 Fill roller cage of inside tapered roller bearing well with specified grease, then insert inside race with roller cage into hub and provide faces of rollers with grease.

14 Fill radial sealing ring between sealing lip and dust lip with specified grease and coat with sealing compound around circumference, then press in with tool.



**9a Radial sealing ring
05d Thrust washer for radial sealing ring**

15 Fill front wheel hub with remaining grease.

Note: When using too much grease, the resulting contractions will result in excessive heating of the grease and a loss of its lubricity. However, the quantity of grease should not be too low either, since this would no longer guarantee perfect lubrication of the tapered roller bearings.

16 Mount brake disc (42-220).